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BUREAU OF LAND MANAGEMENT
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BUREAU OF LAND MANAGEMENT
VALE DISTRICT POLICY FOR NOTICE-LEVEL OPERATIONS AND RECLAMATION COST ESTIMATES

RECLAMATION COST ESTIMATE GENERAL INFORMATION

The following information is a general guideline for preparation of Notices and reclamation cost estimates for Notice-level operations on lands administered by the Bureau of Land Management (BLM) Vale District Office. Any of the following topics may be modified, based on site specific circumstances with approval by the BLM. The intent of this policy to provide a suggested framework for claimants and/or operators preparing notices and reclamation cost estimates to be provided to the local Vale District Office for review. This guidance should be used in coordination with all applicable Federal and State Regulations.

The following attached documents have been included to assist Operators in developing a reclamation cost estimate:

Local equipment rates and current costs are provided in Attachment 1.

Attachment 1, page 2, is a reference to Information Bulletin No. OR-2003-206 which details the required percentages that must be added to reclamation cost estimates when using Davis-Bacon wages.

Examples of equipment production rates and an acceptable methodology that can be used to determine equipment production rates is provided in Attachment 2.

A summary of the process to obtain a financial guarantee for Notice-level operations is provided in Attachment 3. This includes the required administrative charges that are to be included on all reclamation cost estimates.

1. NOTICE-LEVEL APPLICATION REQUIREMENTS

Notice Information

To be considered complete, a Notice must contain all information as required by 43 CFR §3809.301. Using the guidelines from this document and the requirements of §3809.301, a detailed description of all aspects of the project area and proposed exploration procedures will expedite the Notice processing time. In general, the more information and detail that can be provided about the proposed operation and any existing land disturbance will minimize the need for requests for additional information.

A Notice-level form is available from the Vale District Offices. This form is not required; however, it will assist the applicant in providing all of the required information. The original signature of the operator(s) and/or claimant (s) must be provided to the BLM when applying for Notice-level activities. Additionally, Notice amendments must have original signatures.

Only one Notice is allowed for each project area. BLM will review new or extended Notices in the same project area to determine whether modification to a single Notice is appropriate. Two separate notices cannot cover the same project area or mining operation.

Maps showing all project activities, proposed and existing, are required for extended and new notices. The maps will also show claim location and orientation, if applicable. These maps must include a known geographic landmark and/or specific information to allow the BLM to navigate to the project area from a surveyed point and determine the exact location of the planned operation. Project specific activities include, but are not limited to, existing/proposed excavation sites, adits, shafts, settling ponds, pipelines, equipment pad locations, existing/proposed drill hole locations, existing/proposed water wells/monitor wells, equipment storage areas, tailings disposal sites, stockpile locations, existing/proposed access routes, and any other information to provide an accurate description of the existing/proposed operations.

For Notices where the operator is not the claimant, the BLM must receive written notification that the claim holder is aware of the proposed Notice-level operation.

2. NOTICE-LEVEL COST ESTIMATE GUIDELINES

Components of a Reclamation Cost Estimate

A reclamation cost estimate must be calculated as if the BLM were to contract with a third party to complete the reclamation of the project area in the event an operator vacates prior to the completion of reclamation.

The cost of mobilization and demobilization for each piece of equipment and personnel is to be included in the estimate. The cost to back fill and re-contour all ground disturbance associated with the Notice operation must be calculated using acceptable industry standard equipment production rates. Equipment production information and construction cost estimating guidelines can be found in the Caterpillar Performance Handbook and R.S. Means Building Construction Cost Data, respectively. For most operation sites, operator efficiency (0.75%) and job efficiency (0.83%) are the only correction factors which should be used when calculating reclamation costs.

The reclamation earthwork should focus on blending the operation with the surrounding topography and site stabilization. Reclamation of all excavations, including ponds and constructed water courses is required. Please refer to 43 CFR 3809.5 and §3809.420 for the definition of the terms associated with reclamation activities.

Removal of items utilized in the operation such as wood cribbing material, pipelines, pond liners, buckets, barrels, power poles, electric cable, scrap metal, inoperable equipment/vehicles, junk, trash, and mining and mining related equipment must be included in the reclamation cost estimate for haulage and disposal in the nearest approved landfill. Also, pursuant to §3809.5 *Reclamation* (5), reclamation includes the removal of structures, buildings, or other support facilities. These costs should be included in the reclamation cost estimate.

Although not required, the Vale District Reclamation Cost Estimation Summary Sheet can be used as guidance to insure all components are included in the reclamation cost estimate.

Seeding

Seeding of all areas of disturbance including upgraded roads, access routes, and equipment pads is required. The goal of seeding disturbances is to promote a stable, self-sustaining plant population with a focus on returning the land to a productive post-mining use.

Only BLM approved seed mix will be applied. The seed bag label or tag must be provided to the BLM within 30 days after the completion of seeding.

Seeding shall be completed between September 15 and December 15, unless directed otherwise by the BLM.

Seeding cost shall include scarification, application and mobilization of equipment to and from the site. Scarification costs should be included in instances where the area to be reclaimed has compacted growth medium.

Growth Medium

All growth medium, including, but not limited to topsoil, will be saved/stockpiled to facilitate final reclamation. Suitable quality fine material from settling ponds must be retained and applied as growth medium in areas where no or limited growth medium is available. Small prospect pits completely within bedrock may be exempt from seeding.

Adit/Shaft Closure

Adit closure typically should be calculated based on in-filling the portal entrance, unless site specific circumstances warrant otherwise. For example, if the adit is located in an area containing threatened and endangered bat species, other types of closures may be required.

Shaft closure will require complete back-filling as practical to prevent safety hazards. A permanent seal near the ground surface may be engineered for abandonment of deeper shafts upon approval by the BLM. A perimeter fence will also be constructed around the shaft opening to mitigate potential hazards. Closure should mitigate potential ground water contamination.

Drill Hole / Water Well/ Monitor Well Abandonment

Drill holes will be abandoned pursuant to Oregon Administrative Rule (OAR) §690 to mitigate potential ground water contamination concerns.

The Vale District BLM requires that the cost to abandon the deepest drill hole of an exploration drilling project be included in the reclamation cost estimate. This assumes that the cost for drill rig mobilization/demobilization will be included in the reclamation cost estimate in addition to the materials required for abandoning the deepest hole. Subsequent hole abandonment would require rig operation hours and materials which are incrementally less expensive than the first hole. If the Notice stipulates immediate abandonment of drill holes upon the completion of drilling, then bonding for drill hole abandonment is not required.

Water wells, piezometers, and monitor wells will be abandoned pursuant to OAR §690 which requires the work to be completed by a water well driller licensed within the State of Oregon.

The Vale District BLM requires that the cost to abandon each water well or monitor well be included in the reclamation cost estimate.

Abandonment of horizontal drains, unused blast holes, pit wall seeps and adits and shafts that intercept ground water will be required to mitigate water quality degradation.

Physical Hazards And Safety Considerations

No safety or physical hazards will remain on site after final reclamation has been completed. For example, if a nearly vertical slope remains where an adit has been backfilled, the residual slope must be reduced to meet Oregon State standards pursuant to OAR §632-030-0027 (1)(2). The final slope must be reclaimed to insure long-term stability and integrity. In general, this would equate to a stable 1.5 to 1 (horizontal to vertical) for cut slopes and 2 to 1 for fill slopes.

During operations, the operator shall maintain his or her structures, equipment, and other facilities in a safe and orderly manner.

Equipment, Use And Occupancy Issues

If the applicant wishes to leave mining equipment, trailers, structures, footings, foundations, fences, etc., on BLM administered public land after seasonal closure of the site, the cost to remove and dispose of these items must be included in the reclamation cost estimate. All use and occupancy issues must be, first, determined by the BLM to be reasonably incident to the operation. Licensed and highway-legal vehicles may be calculated at a mobilization rate; all other equipment should be calculated assuming loading and haulage by truck to the nearest approved landfill or salvage yard.

Power Poles and Lines

The cost to remove all power poles and associated wire from the electric meter to place of use at a remote mine site must be included. This ranges from $400 to $500 for each power pole, plus mobilization mileage. The cost would typically be higher if mechanized equipment is required to construct access to the power poles.

Roads, Vehicle Access and Ways

The cost to reclaim any new road or upgraded road will be included in the cost estimate. This may include scarification, backfill/re-contour, culvert removal/disposal, energy dissipation structures, grade controls and other erosion control structures. Final road slope configurations should be calculated to minimize long-term erosion potential and limit post-mining access.

3. Financial Guarantee Process for Notice Level Operations under 43 CFR 3809 Surface Management Regulations

Pursuant to §3809.554(b) and §3809.503(c), you must provide a financial guarantee acceptable to the Bureau of Land Management (BLM) before you can begin operations under a new notice. Your financial guarantee must cover the estimated reclamation cost as if the BLM were to contract with a third party to reclaim your operations pursuant to §3809.552(a) and §3809.554(a).

Financial Guarantee Process

To fulfill the 43 CFR 3809 Surface Management financial guarantee requirements, the following steps must be followed by the operator:

1. BLM determines that your Notice is complete.
2. The operator provides a reclamation cost estimate to BLM.
3. BLM reviews the reclamation cost estimate and determines if it is acceptable. If it is determined to be acceptable, BLM sends the operator a decision letter accepting the estimate.
4. The operator obtains one of the following types of financial guarantees, which the BLM Oregon State Office has determined to be acceptable: surety bonds, cash, irrevocable letters of credit, certificates of deposit, and assignments of deposit. Financial guarantee forms for surety and personal bonds are available from our office. It is recommended that the financial instrument and accompanying form be sent certified mail-return receipt requested. The financial instrument and accompanying form must be sent to the following address: **Ms. Sally Hall, BLM Vale District Office, 100 Oregon Street, Vale, Oregon 97918**.
5. The Vale District Office will determine if the financial instrument is acceptable. It will take a minimum of 30 days for BLM to pre-adjudicate the bond.
6. Operations may not commence until the BLM has generated a decision letter accepting the financial guarantee.
7. A written request is required to release a financial guarantee instrument.

Davis Bacon Wages

Davis Bacon wages must be used in the reclamation cost estimate for all amounts over $2,000.

Administrative Charges[2]

The following administrative charges must be added to the reclamation cost estimate and included in the financial guarantee:

Engineering, Design and Construction	0.5%
Contingency	3.0%
Profit (contracts)	10.0%
Insurance Premium (1.5% of labor costs, if not previously included)	1.5%

Contract Administration (Operational Project costs)		10.0%
	Total	25.0%

The Administrative Charges of 25% are applied to the total reclamation estimate.

BLM-Denver indirect costs 17.8%

The BLM Denver indirect costs percentage is applied to the total amount calculated above.

For example, if the reclamation cost estimate is $1,000 + 25% (of $1,000) = $1,250 + 17.8% (of $1,250) = $1,472.50. Please round the total to the nearest dollar when submitting the financial instrument.

4. RELEASE OF FINANCIAL GUARANTEES

Requests for release of existing financial guarantees must be provided to BLM in writing before BLM will contact the financial institution for a release request. These requests must include the Notice "OR" serial number, name(s) of all claimants and operators, mailing addresses, phone numbers, and the amount requested for release. BLM must verify satisfactory completion of site reclamation prior to authorizing the release of the financial guarantee.

[1] Instruction Memorandum No. OR-2003-034
[2] Instruction Memorandum WO-2003-082 and direction from BLM Oregon/Washington State Office

Attachment 1
“Local” Contractor Equipment and Labor Rates

Information Bulletin No. OR-2003-206 outlines the percentages that must be added to Davis-Bacon wage rates for each particular job listed. In general, the BLM will only apply the following rates to estimates for construction contracts for mining reclamation projects of $2,000.00 and greater requiring the use of Davis-Bacon wage rates:

Social Security (FICA) (7.65%),
Federal Unemployment Tax (FUTA) (0.08%),
State Unemployment Tax (SUTA) (3.10%)
and Worker's Compensation Premium (8.00%).

These percentages are not required to be added to "Local" contractor rates used for projects below the $2,000.00 cost threshold.

Attachment 2

Scarification and Earthwork Production Estimation

The following information has been referenced from the Caterpillar Performance Handbook, Editions 32, October 2001, and 33, October 2002. These calculations should be used as a general guideline in calculating off-the-job equipment performance. On-the-job equipment performance may differ from these calculations depending upon material type, blade/bucket configuration, job size, operator skill, and site conditions. The available equipment may not always match the earthmoving job volume creating performance and cost variances. Equipment mobilization costs must be included in the cost estimate.

Scarifying / Ripping Calculations

Dozer make: Caterpillar D6
Ripper type: Multi-shank Ripper bar = 8 feet (ft)
Rip Spacing = 2 ft

Ripping Speed: (ft/minute (min) = 88 to134) = 134 ft/min = 1.5 miles/hour (hr)
Ripper Penetration: 0.5 ft.
Area Ripped / Pass: = 4 ft^2/ft
Ripping Production: 134 ft/min X 60 min. X 4 ft/ft in a pass = 32,160 ft^2/hr
Conversion: 1 Acre = 43,560 ft^2

Correction Factors: Caterpillar Performance Handbook
Job Efficiency: 83%
Average operator Efficiency: 75%

Ripping Production: 32,160 X 0.80 X 0.75 = 19,296 ft^2/hr
Equivalent to 0.45 acres/hr or 2.26 hrs/ acre ÷ ¼ = 0.57 hrs for 1/4 acre

Cost to scarify 1 acre is D6 dozer rate of $88.97 x 2.3 hrs = $204.63

Methodology for Determining Cost of Earthwork

Production rate for a D-6 bulldozer with an average push distance of 50 feet is 450 $yard^3$/hour (yd^3/hr). The industry standard correction factors applied are average operator efficiency (0.75) and job efficiency (0.83). Therefore, the standard production rate is 450 yd^3/hr x 0.75 x 0.83 = 280 yd^3/hr.

Example: Reclamation of an open trench in gravels and soil using a CAT D-6: 10' x 20' x 5' deep = 1,000 ft^3÷ 27ft^3/cy = 37 yd^3 ÷ 280 yd^3/hr x $88.97/hr (D-6 rate)= $11.75

Production rates for a D-7 bulldozer with an average push distance of 50' is 750 yd^3/hr. The industry standard correction factors applied are average operator efficiency (0.75) and job efficiency (0.83). Therefore, the standard production rate is 750 yd^3 x 0.75 x 0.83 = 467 yd^3/hr.

Example: Reclamation of an open trench in gravels and soil using a CAT D-7: 10' x 20' x 5' deep = 1,000 ft^3 ÷ 27ft^3/yd^3 = 37 yd^3 ÷ 467 yd^3/hr x $89.38/hr (D-7 rate)= $7.09 Production rates for a 312C excavator fitted with a 0.68 yd^3 bucket is 194 yd^3/hr. The industry standard correction factors applied are average operator efficiency (0.75) and job efficiency (0.83). Therefore, the standard production rate is 194 yd^3 x 0.75 x 0.83 = 121 yd^3/hr.

Example: Replacing side-cast material to backfill to topography a 1000 ft long road cut, 10 ft wide in bedrock on a 30^o slope using a CAT 312C: 1000' x 10' x 8' average depth = 80,000 ft^3 ÷ 27ft^3/yd^3 = 2963 yd^3 ÷ 121 yd^3/hr x $90.00/hr (excavator rate)= $2204.00

Production rate for a CAT Loader with a 3.5 yd^3 bucket with an average haul distance of 100 feet on a 6% grade is 350 yd^3/hr. The industry standard correction factors applied are average operator efficiency (0.75) and job efficiency (0.83). Therefore, the standard production rate is 350 yd^3/hr x 0.75 x 0.83 = 218 yd^3/hr.

Example: Reclamation of an open trench in silicified rock using a CAT 950G Loader: The project site is 60 miles (assume 1 hour for one way travel) from the contractor's location. The trench is 15' x 40' x 5' deep = 3,000 ft^3÷ 27ft^3/yd^3 = 111 yd^3 ÷ 218 yd^3/hr x $67.50/hr (3.5 yd^3 loader rate) = $34.40. Mobilization and demobilization cost is 2 x $67.64/hr. = $135.28. Total cost is $34.40 + $135.28 = $169.68. The added BLM Administrative costs of 25% adds $42.42 bringing the total to $212.10. Adding the BLM-Denver indirect cost of 17.8% equates to a final cost of $212.10 + $37.75 = $250.00.